

MP-252 WDNB All-In-One Integrated Access Device

Release Notes

Version 3.4.3

Document #: LTRT-22010



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Notice

This document presents AudioCodes' **MP-252 Integrated Access Device (IAD)** Release Notes Version 3.4.3.

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Abbreviations and Conventions

Each abbreviation, unless widely used, is spelled out in full when first used.

Related Documentation

Document Name
MP-252 Demo Guide
MP-252 Multimedia Home Gateway Quick Guide
MP-252 User's Manual
MP-252 DECT Phone User's Manual

1 Introduction

Version 3.4.3 is a software release for the MP-252-WDNB Integrated Access Device.

MP-252-WDNB integrates the following features into a single device:

- ADSL/ADSL2/ADSL2+ modem - up to 24 Mbps
- Router, Firewall, NAT, and advanced traffic prioritization mechanisms
- Four 10/100Base-T Ethernet LAN ports with internal L2 switch
- Optional 10/100Base-T Ethernet WAN port (for connection to cable modem or FTTH ONU)
- High-speed wireless access point (802.11 b/g/n) - up to 150 Mbps
- VoIP Gateway with two FXS ports for connecting analog phones and fax machines
- DECT / CAT-iq base station supporting up to 5 registered CAT-iq handsets
- 3 USB ports supporting print server and file server
- 3G backup using an external 3G (HSDPA) USB dongle
- Bluetooth interface (not supported in this release)
- Advanced TR-069 management - interoperable with leading Auto-Configuration Servers (ACS)

MP-252-WDNB supports all software features available in the MP-2xx product line.

The DECT/CAT-iq base-station feature enables registration of handsets directly to the MP-252-WDNB without the need for an external PSTN-to-DECT base station. This enables better voice quality (HD VoIP) and a richer user experience..

MP-252 is interoperable with leading softswitches and SIP Application Servers, offering legacy phone services such as caller ID, call waiting, and call forwarding.

Utilizing AudioCodes' VoIPerfect™ core architecture and gaining from its accumulated experience in providing IP telephony solutions, MP-252 combines superior voice quality and state-of-the-art features for end users, such as T.38 Fax Relay and G.168-2004-compliant Echo Cancellation. Low bit-rate vocoders (voice coders) can be used simultaneously on both telephony ports to free valuable bandwidth resources. The "Voice-over-Data" prioritization algorithm prevents degradation in voice quality even during large data transfers.

As mentioned above, the MP-2xx series is designed for full interoperability with leading softswitches and SIP servers for deployment in various network environments. Throughout the years, AudioCodes has invested significant effort in establishing, and complying with the leading and evolving VoIP standards. Support of SIP, which is commonly found in Voice-over-Broadband (VoB) networks, assures seamless integration and rapid deployment.

The MP-252-WDNB features available in Version 3.4.3 are listed in the table below:

Table 1-1: MP-252-WDNB Specifications

Feature	Details
ADSL Interface	<ul style="list-style-type: none"> ▪ RJ-11 ADSL Jack ▪ ITU G.992.1 (G.dmt) – ADSL ▪ ITU G.992.3 (G.dmt.bis) – ADSL2 ▪ ITU G.992.5 – ADSL2+ ▪ Automatic PVC scanning ▪ Multiple PVCs ▪ Annex B (ADSL over ISDN) support available on a separate P/N ▪ PPPoE-over-ETHoA or IP-over-ETHoA
Ethernet Interface	<ul style="list-style-type: none"> ▪ 4 ports RJ-45, 10/100Mbps, MDI/MDIX Auto-Sensing ▪ Port 4 can be configured as Ethernet WAN ▪ IEEE 802.3, IEEE 802.3u ▪ Wire-speed L2 switching between LAN ports
Wireless LAN	<ul style="list-style-type: none"> ▪ Wireless LAN - 802.11b/g/n Wireless Access Point, 2.4 GHz ▪ 2x2 MIMO internal antennas ▪ Wireless Security: <ul style="list-style-type: none"> ✓ WPA ✓ WPA2 ✓ WPA/WEP Mixed Mode ✓ TKIP Encryption ✓ WPS ✓ MAC Filtering ▪ Virtual AP – Up to 4 SSIDs
USB Interface	<ul style="list-style-type: none"> ▪ 3 Type-A USB 2.0 Host Interfaces ▪ Providing up to a total of 1A current ▪ Network file server access to USB storage device: <ul style="list-style-type: none"> ✓ NTFS and FAT32 support ✓ Windows networking and file sharing ✓ WINS server ▪ Network printer access to USB printers: <ul style="list-style-type: none"> ✓ Support for most Linux-compatible printers ✓ LPD and Microsoft Shared Printers support ▪ 3G (HSDPA) backup <ul style="list-style-type: none"> ✓ Support for various models of 3G dongles ✓ Automatic switchover from ADSL/Ethernet WAN to 3G
FXS (Phone) Interface	<ul style="list-style-type: none"> ▪ 2 RJ-11 Loop-start FXS Ports ▪ Configurable regional settings (impedance coefficients) ▪ Up to 5 REN / 0.5km load support (default set to 3 REN)
DECT/CAT-iq Interface	<ul style="list-style-type: none"> ▪ Internal DECT/CAT-iq base station ▪ Built-in charger unit ▪ Support for up to 5 registered handsets ▪ HD VoIP (G.722 or WB-AMR) calls
VoIP Signaling Protocols	<ul style="list-style-type: none"> ▪ SIP - RFC 3261, RFC 2327 (SDP)

Feature	Details
Data Protocols	<ul style="list-style-type: none"> ▪ IPv4, TCP, UDP, ICMP, ARP ▪ PPPoE (RFC 2516) ▪ L2TP (RFC 2661) ▪ PPTP (RFC 2637) ▪ DNS, Dynamic DNS ▪ WAN-to-LAN Layer-3 routing with: <ul style="list-style-type: none"> ✓ DHCP Client/Server (RFC 2132) ✓ NAT: RFC 3022, Application Layer Gateway (ALG) ✓ Stateful Packet Inspection Firewall ✓ QoS - Priority queues, VLAN 802.1p,Q tagging, traffic shaping
Media Processing	<ul style="list-style-type: none"> ▪ Voice Coders: G.711μ/a-law, G.729A/B, G.722, AMR, WB-AMR ▪ Echo Cancellation: G.168-2004 compliant, up to 64-msec tail length ▪ Silence Compression ▪ Adaptive Jitter Buffer 300 msec ▪ Fax bypass, Voice-Band Data and T.38 fax relay
Telephony Features	<ul style="list-style-type: none"> ▪ Call Hold and Transfer ▪ Two independent 3-Way Conferencing (one per line) ▪ Call Waiting ▪ Message Waiting Indication ▪ Call Forward ▪ Telephony Signaling: <ul style="list-style-type: none"> ✓ DTMF: Detection and Generation, TIA464B. In-band, RFC2833 or SIP-INFO relay ✓ Caller ID: Telcordia, ETSI, NTT - Type I, Telcordia Type II ✓ Configurable Call Progress Tones ✓ On/Off hook detection, Hook-flash detection
Configuration and Management	<ul style="list-style-type: none"> ▪ Embedded Web Server for configuration and management ▪ TR-069 and TR-104 for remote configuration and management ▪ Remote firmware upgrade and configuration by HTTP, TFTP, FTP, and HTTPS ▪ SIP-triggered remote firmware and configuration upgrade ▪ Command-Line Interface (CLI) over Telnet ▪ Dual image management ▪ SNMP
Packetization	<ul style="list-style-type: none"> ▪ RTP/RTCP Packetization (RFC 3550, RFC 3551) ▪ DTMF Relay (RFC 2833)
Security	<ul style="list-style-type: none"> ▪ HTTPS for Web-based configuration and for TR-069 ▪ Password-protected Web pages (MD5) ▪ Configuration file encryption (3DES) ▪ SIP over TLS ▪ State-full Packet Inspection firewall

Reader's Notes

2 Gateway Version 3.4.3

2.1 What's New in Version 3.4.3

Version 3.4.3 offers the following new features:

- Support for configuring “any to any” extensions/lines using the MP-252 multiline Home PBX.
- Local Support and Troubleshooting (LST). Automatic detection of problems, such as internet connection, cabling, SIP registration issues, and advising the user on how to resolve them (Web interception and voice messages).
- NAT and security settings are now available via TR-069.
- SIP user-agent is now configurable.
- ADSL DELT feature is now supported.
- Intercom calls are available to FXS ports as well as to DECT handsets.
- AMR codecs are now supported.
- Remote side disconnection will automatically disconnect the call for DECT HS.
- When entering the missed calls list, the counter is automatically zeroed.
- Wideband codecs can be restricted for FXS ports, or allowed – configurable.
- Artificial Bandwidth Extension (ABE) feature is available. Artificially extend NB audio to WB to improve the quality of the audio, and give better experience to the user.
- WiFi RSSI indication is shown in the WEB home page.
- Advanced filtering firewall now supports filtering by packet contents.
- DECT base name is now configurable. Default is “AudioCodes”.
- Support DECT 6.0 (US).

2.2 Resolved Constraints in Version 3.4.3

The following constraints from previous releases **have now been resolved** in Version 3.4.3:

- VLANs in WAN side are now supported.
- Improved (roughly doubled) performance in L2TP configuration.
- Occasionally, on incoming calls, both FXS phones ring at the same time. They should ring alternately.
- Support for 4 concurrent calls.
- INX configuration file format problem has been resolved.
- MP-252 upgrade is delayed if there is an ongoing conversation.
- Internal transfer to off hooked extension problem has now been resolved.
- CWRR is now supported on FXS extensions.
- Re-Answer feature problem has now been resolved.
- Automatic dialer problem with ADSL (PPPoE) has now been resolved.
- The Web display of VoIP system-monitoring is revised to show the correct status.
- Codec negotiation issues with G.722 has been resolved.
- DECT calls list or phone book access fix.
- ADSL Annex M display fix in ADSL parameters Web page.
- Flash + digits configuration is now supported.
- Scrolling phone-book display after search distorted the display fix.
- If transferring a call from FXS to DECT, the call can be HD (codec negotiation is performed again).
- Now you are able to create second call using pre-dialing if first call was created from phone-book or call-list entry.
- Conferencing if the calls were created with phone-book entries is now supported.
- Sometimes when making a NB outgoing conversation with DECT handset, a short tick is heard - fixed.
- When DECT is disabled, on WDNB model, ticks are heard on the FXS lines - fixed.
- DSL information is sometimes missing (in WAN DSL Properties page) - fixed.
- Numbers with "*" are now saved OK in the calls list.
- One way voice on internal transfer scenario problem is fixed.
- Ethernet-LEDs: When there is a link with no activity, LED is on steady, green for 100M, yellow for 10M. Upon activity, LED will blink.
- Streamer in the LAN is now supported (IGMPv2).
- Sierra 3GD is now supported.
- Local call forward (*72) from DECT HS now works.
- Handset that transferred a call to another Handset can now make other calls while the transferred conversation is still ongoing.

2.3 Known Limitations in Version 3.4.3

Version 3.4.3 includes the following known limitations, which are planned to be fixed in future software versions:

- The DECT handset doesn't display the name from the phone book when an outgoing call is made.
- When upgrading from a version lower than 3.4.0, restore to default is mandatory.
- Calling your own number is not supported.
- The DECT calls list contains all extensions, even if configured on different lines.
- Unable to reject a call.
- Transferring an internal call to an external one is not supported.
- CAT-IQ2.0 data browsing (calls list, phone book) is slow – about 5 seconds delay.
- Ethernet-LEDs: on "old" HW, LEDs colored are swapped.
- Streamer in the LAN: if configured with IGMPv3 is not working.
- If L2TP server is configured with hostname, and its IP address is changed, automatic reconnect doesn't take place.
- Nested transfer by DECT Handset is not supported.
- 3GD "dialed number" is not configurable.
- If the first call from the DECT Handset is "automatic dialing", a 2nd call cannot be made with this Handset.
- For a DHCP configuration in environment without internet connection, if LST is enabled, performance WAN->LAN are affected.
- Formatting storage device to NTFS is not supported.
- Upgrading units manufactured before 1/1/2012 may lead to damage if powering off during DECT base upgrade (done automatically during the first 2 minutes after firmware upgrade).
- Envelope display on MWI is not supported on DECT handsets.
- If first 2 DECT calls are not WB, 3rd and 4th calls' dial tones might sound metallic.
- MOH on DECT call might sound metallic to the remote side (depending on codecs involved).
- Internal transfer between extensions that are not on the same line is not supported.
- On very rare occasions, while Web is open and massive VoIP operations are made, the unit might stop responding.
- An internal transfer from DECT Handset to FXS behaves differently than an inter-DECT transfer. First press on transfer key makes a call to the FXS (shows "Waiting" until FXS answers), then, another press on the transfer key should be made in order to make the transfer.
- Answering a 2nd call from a different line on the same extension does not work.
- When making a DECT internal transfer between extensions that are associated with different lines, the association is swapped.
- When switching between ADSL or Ethernet WAN infrastructures, restore to default is mandatory.
- Fast-path must be disabled when using the L2TP dialer.
- In the L2TP mode, WAN-to-LAN traffic shaping does not function with UDP packets (note that traffic shaping is not required in this direction).
- WAN-LAN bridging is not supported.
- The MAC cloning feature is not supported.
- To switch between "SIP Security" modes, MP-252 needs to be restarted.
- G.726/16 Payload Type; the option to enter value '102/103' has been blocked.
- Quality of Service (QoS) cannot be configured using the Web interface's QoS Wizard (**QoS** menu > **QoS Wizard** tab); it can only be configured using the Web interface's Traffic Shaping screen (**QoS** menu > **Traffic Shaping** tab).

- USB file transfer rate is limited to 5 MB/s for the read operation and 2.5 MB/s for the write operation (depending on file-system type and file size).
- Some USB printers do not function properly with the Network Printer Server feature; depending on their compatibility with Linux systems and driver issues.
- During a voice call session, the user can send a fax to the remote party only once, and thereafter, the user cannot switch back to the voice session.
- Occasionally, after software or hardware reboot, TCP registration may take a few minutes.
- After the dial tone timeout has expired (and a fast-busy tone is played), the user can still make outgoing calls.
- To ensure that the OPTIONS Keep-Alive feature is fully functional, the remote side must send any message, including a SIP 501 "Not implemented" message.
- Enabling or disabling the 'Periodic Checking of Configuration file' feature requires a device reboot.
- A SIP NOTIFY message with a "check-sync" event causes a device reboot, even if there are ongoing calls taking place.
- 'set_obscure' is not working on the character ';'.
- Port forwarding for user "user" should be blocked for well known ports.
- The following features have Alpha level support (for more information, please contact AudioCodes):
 - Backup and Restore
 - Disk Management
 - Managing Disk Partitions
- The following WAN DSL connection types have Alpha level support (for more information, please contact AudioCodes):
 - Routed Ethernet Connection over ATM (Routed ETHoA)
 - LAN-WAN Bridged Ethernet Connection over ATM Bridged ETHoA)

3 Handset Version 40.36

3.1 What's New in Version 40.36

- A Long press on 1, calls "1" (voice message).
- Right arrow key leads to missed calls list.
- Changed behavior of Internal transfer (Soft Key "Transfer" has replaced the "hold" key).
- Ringtone #5 has been replaced.

3.2 Resolved Constraints in Version 40.36

- While browsing the calls list, on rare occasions an incoming call may not ring.
- Second off hook after pressing the green button, would lead the Handset into pre-dialing even if the first off hook was not used for an active call.
- Rejecting a call ("Unavailable" or "Busy") resulted in inconsistent behavior.
- In silent mode (activated by *), when the keypad is locked (activated by #), and then any key is pressed, the DTMF tone is loud.
- When saving Phonebook entries with long names, you cannot see the details of the entry.
- 3rd off-hook is rejected if 2 other HD channels are already taken.
- DECT: The Phonebook search: search contact, scroll with the narrows up/down display was distorted.
- Sometimes, when trying to off-hook the phone, a noise is heard (as if registration is lost), and not a dial tone.
- When making a conference/transfer, remove the approval screen.
- The "Call deflection" option has been removed.
- Occasionally the "Call List" cannot be accessed.
- When restoring to HS default, the default melodies are 10 & 15 (for internal and external rings) instead of 1 & 1.
- The "flash" option has been removed from the Handset menu.
- Wideband audio quality has been improved.

3.3 Known Limitations in Version 40.36

- Phonebook Hebrew edit – left arrow goes right, right arrow goes left.
- When an incoming call is transferred from a Handset to one of the FXS ports, this results in a "waiting" message and no blind transfer.
- DECT: While the DECT is in off hook mode, the right menu link displays "Trans" and fades away immediately.
- When calling to a Handset, on rare occasions, the "call waiting" logo appears even though it is the first incoming call.

Reader's Notes

4 Previous Releases

4.1 Version 3.4.1

4.1.1 What's New in Version 3.4.1

Version 3.4.1 offers the following new features:

- TR-069 INI format is now supported.
- Now enable/disable DECT is supported via WEB/TR-069.
- Configuring DECT handsets names is now supported via WEB.
- If trying to register a DECT HS, and there are already 5 registered HSs, the user will have a notification (short blinking in red of the DECT LED).
- DECT base version is now displayed in WEB (Advanced->About).
- DECT over-the-air codec matches NB/WB.
- FXS is not allowed to use G722, as it is a WB codec.
- Internal transfer (without REFER) is now supported.
- DECT base FW is integrated in the host SW. Automatic upgrade is performed if needed.
- TR-069 LAN/WAN indices are now ordered 1,2,3... and not by internal configuration settings.
- DHCP option 42 (NTP) is now supported.

4.1.2 Resolved Constraints in Version 3.4.1

The following constraints from previous releases **have now been resolved** in Version 3.4.1:

- Multi-PVC LED behavior is now fixed.
- Printing to a printer with no paper stuck is resolved.
- DECT calls list is now updated by daylight-saving configuration.
- DECT call lists bug fixes, and now for all extensions, not only DECT handsets.
- In case of bring up while DECT is disabled, the DECT button behavior is misleading.
- DECT 3 way conference fix.
- Hebrew phone-book entries are now ordered alphabetically.
- Hebrew phone-book entries search now works.
- IGMP protocol for multicast is now supported.
- DECT handset now displays the name from the phone book when an incoming call is received.
- TR-069 motive certification fixes.
- Configuring 3GD can be restored if previously selected "No Internet Connection".

4.1.3 Known Limitations in Version 3.4.1

Version 3.4.1 includes the following known limitations, which are planned to be fixed in future software versions:

- CWRR is not supported.
- When a first call is on hold and the user dials a second call incorrectly, it may not be possible to retrieve the first active call.
- The WEB display of VoIP system-monitoring is not correct.
- DECT handset doesn't display the name from the phone book when an outgoing call is made.
- Envelope display on MWI is not supported on DECT handsets.
- When upgrading from a version lower than 3.4.0, restore to default is mandatory.

- Intercom calls are available only to DECT handsets.
- Calling your own number is not supported.
- Codec negotiation – if G.722 is not the first codec, it will not be supported for incoming call.
- If configuring only G.722 codec on FXS extensions, cannot do calls.
- DECT calls list contains all extensions, even if configured on different lines.
- Unable to reject a call.
- DECT calls list or phone book access sometimes does not work.
- ADSL Annex M shows “Unknown” in line mode, in ADSL parameters.
- Flash + digits configuration is not fully supported.
- If scrolling phone-book display after search, it may become distorted.
- If transferring call from FXS to DECT, call will not be HD.
- VLANs in the WAN do not work.
- Unable to create second call using pre-dialing if first call was created from phone-book or call-list entry.
- Cannot conference if the calls were created with phone-book entries.
- Occasionally on incoming call both FXS phones ringing on the same time.
- DHCP mode performance is lower on WDNB model compared to BW.
- Transferring an internal call to an external one is not supported.
- E-mail configuration via WEB is not supported.
- CAT-IQ2.0 data browsing (calls list, phone book) is slow – about 5 seconds delay.
- On rare occasions the DECT handset displays “Unsecured base” message.
- Sometimes when making a NB outgoing conversation with DECT handset, a short tick is heard.
- When DECT is disabled, on WDNB model, ticks are heard on the FXS lines.
-
- When switching between ADSL or Ethernet WAN infrastructures, restore to default is mandatory.
- Fast-path must be disabled when using the L2TP dialer.
- DSL information is sometimes missing (in WAN DSL Properties page).
- INI file download through the Web interface is not supported.
- In the L2TP mode, WAN-to-LAN traffic shaping does not function with UDP packets (note that traffic shaping is not required in this direction).
- WAN-LAN bridging is not supported.
- The MAC cloning feature is not supported.
- To switch between “SIP Security” modes, MP-252 needs to be restarted.
- G.726/16 Payload Type; the option to enter value ‘102/103’ has been blocked.
- Quality of Service (QoS) cannot be configured using the Web interface’s QoS Wizard (**QoS** menu > **QoS Wizard** tab); it can only be configured using the Web interface’s Traffic Shaping screen (**QoS** menu > **Traffic Shaping** tab).
- USB file transfer rate is limited to 5 MB/s for the read operation and 2.5 MB/s for the write operation (depending on file-system type and file size).
- Some USB printers do not function properly with the Network Printer Server feature; depending on their compatibility with Linux systems and driver issues.
- During a voice call session, the user can send a fax to the remote party only once, and thereafter, the user cannot switch back to the voice session.
- Occasionally, after software or hardware reboot, TCP registration may take a few minutes.
- After the dial tone timeout has expired (and a fast-busy tone is played), the user can still make outgoing calls.

- To ensure that the OPTIONS Keep-Alive feature is fully functional, the remote side must send any message, including a SIP 501 “Not implemented” message.
- Enabling or disabling the ‘Periodic Checking of Configuration file’ feature requires a device reboot.
- A SIP NOTIFY message with a “check-sync” event causes a device reboot, even if there are ongoing calls taking place.
- The Google Chrome browser is not fully supported.
- ‘set_obscure’ is not working on the character ‘;’
- Port forwarding for user "user" should be blocked for well known ports.
- The following features have Alpha level support (for more information, please contact AudioCodes):
 - Backup and Restore
 - Disk Management
 - Managing Disk Partitions
- The following WAN DSL connection types have Alpha level support (for more information, please contact AudioCodes):
 - Routed Ethernet Connection over ATM (Routed ETHoA)
 - LAN-WAN Bridged Ethernet Connection over ATM Bridged ETHoA)

4.2 Version 3.4.0

4.2.1 What's New in Version 3.4.0

Version 3.4.0 offers the following new features:

- VoIP advanced application (PBX):
 - Single line for all extensions.
 - Support for up to 5 DECT handsets.
 - Support for up to 3 concurrent calls on the same SIP account.
 - Support for call hold, transfer and 3-way conferencing.
 - Support for internal calls between extensions.
 - Support for up to 2 concurrent HD VoIP conversations.
 - Support for WEB interface of advanced application.
 - DHCP option 33 is now supported.
 - Deleting configurations is now enabled via INI file.
 - Support for configurable 3GD via WEB and TR-069.
 - Support for “internet Connection Utilization” on system-monitoring page.
 - VLANs on LAN side are now supported.
 - WiFi configuration is now supported via the “Quick Setup” page.
 - Support for multiple PVCs on ADSL interface.
 - SIP “user-agent” is now configurable.
 - ABE (Artificial Bandwidth Announcement) for demonstration purposes is now provided.

4.2.2 Resolved Constraints in Version 3.4.0

The following constraints from previous releases **have now been resolved** in Version 3.4.0:

- DTMF Relay RFC2833 Payload Type 106: digits sounds were distorted/some were not sent
- WPS Feature: When attempting to connect to MP-252 Wi-Fi using 'Jumpstart' client, entering the PIN code from an access point, results in a connection failure.
- Dialing to an international number (starting with “+”) via the calls list is now supported.
- The Calls list now displays the time, including the time-zone.
- DECT button behavior has been revised: A long press (5 seconds or more) activates the On/Off functionality; a medium press performs registration and a short press (less than 2 seconds) activates paging.
- SIP Security: "Allow SIP traffic from proxy and additional SIP entity"; an additional SIP entry in this field does not resolve a hostname.
- During long periods of extreme LAN-WAN traffic load (e.g. multiple PCs running peer-to-peer applications) which includes Wi-Fi and VoIP calls, MP-252 reboots may occur; this issue has been resolved.
- The WAN DSL page might cause a reboot or disconnection; this issue has been resolved.
- The WiFi button is now less sensitive when shutdown of the WiFi is performed.
- Changing PVCs while connected to ADSL, no longer requires a manual reboot to re-connect.
- Changing PPPoE user/password while connected to ADSL, no longer requires a manual reboot to re-connect.
- DECT Handset screen time display is now periodically updated by NTP.

4.2.3 Known Limitations in Version 3.4.0

Version 3.4.0 includes the following known limitations, which are planned to be fixed in future software versions:

- CWRP is not supported.
- When a first call is on hold and the user dials a second call incorrectly, it may not be possible to retrieve the first active call.
- The WEB display of VoIP system-monitoring is not correct.
- Changing DECT Handset (HS) names via the WEB is not supported.
- Legacy line configuration (separate line for each extension) is not supported.
- Missed calls and calls list records are not accurate.
- Hebrew search in PB is not supported.
- DECT base is not upgradable remotely.
- DHCP option 42 (NTP) is not supported.
- DECT handset doesn't display the name from the phone book when an outgoing call is made, or when an incoming call is received.
- Envelope display on MWI is not supported on DECT handsets.
- When upgrading from a previous version, restore to default is mandatory.
- A 3 way conference between 3 DECT handsets has only one way voice.
- When the unit reboots after the DECT was disabled, DECT button behavior is incorrect.
- If there are already 5 registered handsets, and you try to register an additional user, there is no indication to the user and the registration fails.
- Transferring a call to an internal extension is not supported without the support of the SIP Proxy server.
- HD symbol on DECT Handset during conversation may not imply that a genuine HD conversation is taking place.
- Intercom calls are available only to DECT handsets.
- Calling your own number is not supported.
- When switching between ADSL or Ethernet WAN infrastructures, restore to default is mandatory.
- Fast-path must be disabled when using the L2TP dialer.
- DSL information is sometimes missing (in WAN DSL Properties page).
- INI file download through the Web interface is not supported (causes MP-252 to reboot).
- IGMP - multicast/unicast LAN-WAN and WAN-LAN does not function.
- In the L2TP mode, WAN-to-LAN traffic shaping does not function with UDP packets (note that traffic shaping is not required in this direction).
- WAN-LAN bridging is not supported.
- The MAC cloning feature is not supported.
- To switch between "SIP Security" modes, MP-252 needs to be restarted.
- G.726/16 Payload Type; the option to enter value '102/103' has been blocked.
- Quality of Service (QoS) cannot be configured using the Web interface's QoS Wizard (**QoS** menu > **QoS Wizard** tab); it can only be configured using the Web interface's Traffic Shaping screen (**QoS** menu > **Traffic Shaping** tab).
- USB file transfer rate is limited to 5 MB/s for the read operation and 2.5 MB/s for the write operation (depending on file-system type and file size).
- Some USB printers do not function properly with the Network Printer Server feature; depending on their compatibility with Linux systems and driver issues.
- During a voice call session, the user can send a fax to the remote party only once, and thereafter, the user cannot switch back to the voice session.

- Occasionally, after software or hardware reboot, TCP registration may take a few minutes.
- After the dial tone timeout has expired (and a fast-busy tone is played), the user can still make outgoing calls.
- To ensure that the OPTIONS Keep-Alive feature is fully functional, the remote side must send any message, including a SIP 501 “Not implemented” message.
- Enabling or disabling the ‘Periodic Checking of Configuration file’ feature requires a device reboot.
- A SIP NOTIFY message with a “check-sync” event causes a device reboot, even if there are ongoing calls taking place.
- The Google Chrome browser is not fully supported.
- ‘set_obscure’ is not working on the character ‘;’
- Port forwarding for user "user" should be blocked for well known ports.
- The following features have Alpha level support (for more information, please contact AudioCodes):
 - Backup and Restore
 - Disk Management
 - Managing Disk Partitions
- The following WAN DSL connection types have Alpha level support (for more information, please contact AudioCodes):
 - Routed Ethernet Connection over ATM (Routed ETHoA)
 - LAN-WAN Bridged Ethernet Connection over ATM Bridged ETHoA)
 - Classical IP Over ATM (CLIP)

4.3 Version 3.3.0

4.3.1 What's New in Version 3.3.0

Version 3.3.0 offers the following new features:

- Beta-level support for DECT/CAT-iq:
 - Separate line (SIP account) for the DECT interface
 - Support for registration of up to 5 handsets
 - Single outgoing or incoming DECT call
 - Support for call hold, transfer and 3-way conferencing
 - Support for call rejecting (reject an incoming call)
 - Caller ID type-I and type-II display on the DECT handset
 - Intercom calls between DECT handsets
 - Call log display
 - Phonebook support (stored in the MP252)
 - Support for HDVoIP G.722 calls
- Beta-level Support for the following 3G-dongles:
 - ZTE MF110 Movistar
 - Huawei E176 truemove
 - Huawei K3765 Vodafone
 - Huawei E156 Movistar
 - Huawei E160 Movistar Huawei E176G Turkcell
 - Huawei E1756 Movistar
- WPS: Wireless Protected Setup. Support three methods of connecting:
 - Push button (by WEB or by physical button).
 - PIN code of the AP.
 - PIN code of the client.
- DSCP-Based Policy Routing : It provides the ability to send specific traffic out of a specific WAN device. This is useful for routing different types of data to different WAN devices
- Now supports additional parameters to 'danube_autoboot_daemon' to support ADSL annexes.
- MP252 is TR069 certified by Motive
- Added embedded iperf
- MP252: support AGC
- Upgrade G.711 PLC

4.3.2 Resolved Constraints in Version 3.3.0

The following constraints from previous releases **have now been resolved** in Version 3.3.0:

- Adjusting sensitivity of the Wi-Fi button
- The Automtice Dialer (AD) Detection 'done' parameter is not updated to 1 immediately after the AD process has finished
- Real World PPPoE isn't connecting only after reboot (use PPPoE DSL 3; automatic PVC scan)
- Restore default button time is "too short"
- When selecting 802.11b mode; the GUI shows a data transfer rate of 54Mbps which is wrong
- Admin GUI is not refreshing periodically
- GUI Need web restriction for *68 and *72 so we can't add * or # because in will not work.
- - GUI :Tx Bandwidth During VoIP Call: need to add kbits/s to this field
- When upgrading firmware via WEB- warning message that alert on the upgrade process pops up after upgrade process ended.
- Do Not Disturb: once disable the feature via WEB- at the next time we enable it via WEB- feature activate automatically
- tcpdump only partially captures all the packets,
- DTMF Relay RFC2833 Payload Type 104 --> digit "0" sounds distorted; all rest digits- can't hear long press.
- DTMF Relay RFC2833 Payload Type 106--> digits sounds distorted/some doesn't sent

4.3.3 Known Limitations in Version 3.3.0

Version 3.3.0 includes the following known limitations, which are planned to be fixed in future software versions:

- When changing between ADSL or Ethernet WAN infrastructures, restore to default is mandatory.
- Fast-path must be disabled when using the L2TP dialer.
- DSL information is sometimes missing (in WAN DSL Properties page).
- During long periods of extreme LAN-WAN traffic load (e.g. multiple PCs running peer-to-peer applications) which includes Wi-Fi and VoIP calls, MP-252 reboots may occur.
- INI file download through the Web interface is not supported (causes MP-252 to reboot).
- IGMP - multicast/unicast LAN-WAN; WAN-LAN does not function.
- In the L2TP mode, WAN-to-LAN traffic shaping does not function with UDP packets (note that traffic shaping is not required in this direction).
- SIP Security: "Allow SIP traffic from proxy and additional SIP entity" – an additional SIP entry in this field does not resolve a hostname.
- WAN-LAN Bridging is not supported.
- The MAC Cloning feature is not supported.
- To switch between "SIP Security" modes, MP-252 needs to be restarted.
- G.726/16 Payload Type - need to block the option to enter value 102/103.
- Quality of Service (QoS) cannot be configured using the Web interface's QoS Wizard (**QoS** menu > **QoS Wizard** tab); it can only be configured using the Web interface's Traffic Shaping screen (**QoS** menu > **Traffic Shaping** tab).
- USB file transfer rate is limited to 5 MB/s in read operation and 2.5 MB/s in write operation (depending on file-system type and file size).
- Some USB printers do not function properly with the Network Printer Server feature, depending on their compatibility with Linux systems and driver issues.
- During a voice call session, the user can send a fax to the remote party only once, and thereafter, the user cannot switch back to the voice session.

- Occasionally, after software or hardware reboot, TCP registration may take a few minutes.
- After the dial tone timeout has expired (and a fast-busy tone is played), the user can still make outgoing calls.
- To ensure that the OPTIONS Keep-Alive feature is fully functional, the remote side must send any message, including a SIP 501 “Not implemented” message.
- Enabling or disabling the Periodic Checking of Configuration File feature requires a device reboot.
- A SIP NOTIFY message with a “check-sync” event causes a device reboot even if there are ongoing conversation calls.
- Google Chrome browser is not fully supported..
- set_obscure is not working on the character ‘;’
- Port forwarding for user "user" should be blocked for well known ports
- The following features have Alpha level support, for more info please contact AudioCodes :
Backup and Restore
Disk Management
Managing Disk Partitions
- The following WAN DSL connection type have Alpha level support for more info please contact AudioCodes :
 - Routed Ethernet Connection over ATM (Routed ETHoA)
 - LAN-WAN Bridged Ethernet Connection over ATM Bridged ETHoA)
 - Classical IP Over ATM (CLIP)

4.4 Version 3.2.2

4.4.1 What's New in Version 3.2.2

Version 3.2.2 offers the following new features:

- MP-252 automatically detects the WAN type (Ethernet or ADSL). When connected to ADSL, the **LAN4/WAN** Ethernet port can be used for Ethernet LAN interface. When connected to an external modem through the Ethernet **LAN4/WAN** port and MP-252 obtains an IP address, the ADSL interface is disabled. To change the WAN type, the user must restore the factory settings.
- Automatic Dialer feature improvements:
 - For the Automatic Dialer feature, the DSL port has priority over the WAN port.
 - The Automatic Dialer process can be stopped using the Web interface.
- Web interface's User's page (**Advanced** menu > **Users** icon):
 - An *admin* user cannot create an additional *admin* user.
 - Users can be enabled or disabled .
- **WiFi** button activation can be conditional upon setting a Wi-Fi password or MAC filtering.
- Management user (in admin / advanced level) cannot be setup without a password.
- Wi-Fi “Web Authentication” method is now supported.

4.4.2 Resolved Constraints in Version 3.2.2

The following constraints from previous releases **have now been resolved** in Version 3.2.2:

- When setting G.729 packetization time to 60 ms, the packetization time is actually set to 40 ms.
- In a scenario in which an authentication is required for call hold, Music on Hold is sometimes not sent from the media server to the remote machine.
- When the local SIP port consists of five digits, MP-252 is unable to make calls.
- Problems with fallback from Fax Relay to Fax Transparent mode.
- When the WAN cable (Port 4) is disconnected, MP-252 acknowledges this only after six seconds.
- In the Web interface's Port Forwarding page (**Security** menu > **Port Forwarding** tab), when selecting the 'Local Host', the IP address should be disabled.
- In the Web interface's User page (**Advanced** menu > **Users** icon), a direct link to the Wi-Fi screen is missing for advanced users.
- Wi-Fi enable/disable button is missing in Web interface Users page (**Advanced** menu > **Users** icon).
- When provisioning through Options 66/67, MP-252 does not get INX or CFX files.
- If the connection takes a long time (for example, in some L2TP scenarios), the upgrade attempt is sometimes missed (and the next attempt is only done 24 hours later). Now, a retry mechanism has been added to the periodic firmware upgrade to ensure upgrade even if the WAN connection takes a long time.
- Packet recording is enabled by default - it sends packets to 192.168.2.2 (from WAN).
- If Wi-Fi is disabled when MP-252 is powered up, the Wi-Fi page cannot be accessed through the advanced user ('lan wireless 802.11n access point' page not found).
- Unnecessary port displayed in Ethernet switch page (**Network Connections** menu > **LAN Hardware Ethernet Switch** connection > **Switch** tab).
- Incorrect LAN port number displayed for connected LAN port (in Web interface's Map View). For example, if LAN 1 is connected, the Map View displays "LAN 2".
- ADSL information displays incorrect vendor ID (in Web interface's WAN DSL Properties page).
- Feature that allows deletion of guest role from the role list created by *admin* user has now been removed.
- Additional call features (i.e., call hold, three-way conferencing) are not possible when dialed number starts with the digit 9.
- Same port can be opened for two different computers in the network (Port Forwarding).
- Incorrect traffic data ("Sent Bytes" / "Received Bytes") displayed in **System Monitoring** menu > **Network Connections** tab.
- WAN Ethernet MAC address is not displayed (for example, in the WAN Ethernet Properties page).
- MP-252 crashes when using TR-069 due to **eth1/mac**.
- Connection lines labeled "unknown" in the Web interface's **Home** page (Map View).
- When switching between PPPoE dialer to PPTP dialer, the **Broadband** LED remains lit red.

4.4.3 Known Limitations in Version 3.2.2

Version 3.2.2 includes the following known limitations, which are planned to be fixed in future software versions:

- When changing between ADSL or Ethernet WAN infrastructures, restore to default is mandatory.
- Fast-path must be disabled when using the L2TP dialer.
- DSL information is sometimes missing (in WAN DSL Properties page).
- During long periods of extreme LAN-WAN traffic load (e.g. multiple PCs running peer-to-peer applications) which includes Wi-Fi and VoIP calls, MP-252 reboots may occur.
- INI file download through the Web interface is not supported (causes MP-252 to reboot).
- IGMP - multicast/unicast LAN-WAN; WAN-LAN does not function.
- For DTMF Relay RFC 2833 Payload Type 104 or 106, digits may sound distorted or long presses on digits may not be audible.
- In the L2TP mode, WAN-to-LAN traffic shaping does not function with UDP packets. (Note that traffic shaping is not required in this direction.)
- SIP Security: "Allow SIP traffic from proxy and additional SIP entity" – an additional SIP entry in this field does not resolve a hostname.
- WAN-LAN Bridging is not supported.
- The MAC Cloning feature is not supported.
- To switch between "SIP Security" modes, MP-252 needs to be restarted.
- G.726/16 Payload Type - need to block the option to enter value 102/103.
- Quality of Service (QoS) cannot be configured using the Web interface's QoS Wizard (**QoS** menu > **QoS Wizard** tab); it can only be configured using the Web interface's Traffic Shaping screen (**QoS** menu > **Traffic Shaping** tab).
- When configuring QoS DSCP, the shaping must be done on the VLAN interface.
- USB file transfer rate is limited to 5 MB/s in read operation and 2.5 MB/s in write operation (depending on file-system type and file size).
- Some USB printers do not function properly with the Network Printer Server feature, depending on their compatibility with Linux systems and driver issues.
- During a voice call session, the user can send a fax to the remote party only once, and thereafter, the user cannot switch back to the voice session.
- Occasionally, after software or hardware reboot, TCP registration may take a few minutes.
- After the dial tone timeout has expired (and a fast-busy tone is played), the user can still make outgoing calls.
- To ensure that the OPTIONS Keep-Alive feature is fully functional, the remote side must send any message, including a SIP 501 "Not implemented" message.
- Enabling or disabling the Periodic Checking of Configuration File feature requires a device reboot.
- A SIP NOTIFY message with a "check-sync" event causes a device reboot even if there are ongoing conversation calls.
- Google Chrome browser is not fully supported.

4.5 Version 3.2.1

4.5.1 What's New in Version 3.2.1

Version 3.2.1 offers the following new features:

- Enhanced automatic dialer detection for multiple WAN interfaces (Ethernet and ADSL).
- Full support for Ethernet WAN, including Quick Setup configuration.
- New Port Forwarding page, providing user-friendly editing.
- Enhanced user permission levels, allowing configuration of an “advanced” home user with access to router-management pages.
- SNMP is now supported.
- WiFi button can now be disabled (using a new parameter).
- Configured WiFi password is now hidden.
- ADSL statistical information is provided through the Web interface.
- Configuration file storage on flash memory has been increased.

4.5.2 Resolved Constraints in Version 3.2.1

The following constraints from previous releases **have now been resolved** in Version 3.2.1:

- Auto Dialer – if the user configures the Internet Connection manually (using the Quick Setup page), at the next reboot, the Auto Dialer runs and overrides the user configuration.
- Problems with Auto Dialer Detection over DSL connection.
- Incorrect Auto Dialer LED indications.
- Adapter disconnection every few hours.
- Incorrect Broadband LED behavior.
- L2TP server can be configured as an IP address only and not as a domain name.
- The pound (#) key cannot be set in the Speed Dial Number field.
- DSL package size displayed in the Web GUI is inaccurate (rounded).
- Fax-related issues.
- TR-069 Wireless definitions, unable to change Wi-Fi authentication security.
- After performing call transfer, the transferring line is not disconnected. When picking up the receiver, the user hears a reorder tone and in case of an incoming call, MP-252 replies with a busy indication.
- No envelope is displayed when receiving MWI.
- VLAN configuration is not functioning properly.
- Problems with PPPoE connection after ADSL PVC scan.
- An NTFS storage device that previously was not safely removed cannot be accessed.
- Problems with TR-069 management.
- Incorrect line registration indication.

4.5.3 Known Limitations in Version 3.2.1

Version 3.2.1 includes the following known limitations, which are planned to be fixed in future software versions:

- When downloading a new firmware through the Web interface, in some cases a “Bad Signature” error is displayed and the user needs to repeat the download.
- In some scenarios and long tests with L2TP dialer, the MP-252 may lose the L2TP connection.
- During long periods of heavy LAN-WAN traffic load (e.g. multiple PCs running peer-to-peer applications), MP-252 reboots may occur.
- In some cases, when sending multiple faxes (more than 10) consecutively, one fax call may fail and the user will need to resend it.
- Fast-path must be disabled when using L2TP dialer.
- WAN-LAN L2 bridging does not function.
- MAC Cloning feature is not supported.
- TR-069 HTTPS mode is not supported.
- Redundant Proxy is not supported.
- To switch between "SIP Security" modes, the MP-252 needs to be restarted.
- Wi-Fi “Web Authentication” method is not supported.
- G.726/16 Payload Type - need to block the option to enter value 102/103.
- Quality of Service (QoS) cannot be configured using the Web interface's QoS Wizard (**QoS** menu > **QoS Wizard** tab); it can only be configured using the Web Traffic Shaping screen (**QoS** menu > **Traffic Shaping** tab).
- When configuring QoS DSCP, the shaping must be done on the VLAN interface.
- Wi-Fi authentication security cannot be configured through TR-069.
- When setting G.729 packetization time to 60 ms, the packetization time is actually set to 40 ms.
- In a scenario where one line is ringing and the other line is playing a ring-back tone, the ring-back tone may be distorted.
- USB file transfer rate is limited to 5 MB/s in read operation and 2.5 MB/s in write operation (depending on file-system type and file size).
- Some USB printers do not function properly with the Network Printer Server feature, depending on their compatibility with Linux systems and driver issues.
- During a voice call session, the user can send a fax to the remote party only once, and thereafter, the user cannot switch back to the voice session.
- In a scenario in which an authentication is required for Call Hold, Music on Hold is sometimes not sent from the media server to the remote machine.
- Occasionally, after software or hardware reboot, TCP registration may take a few minutes.
- After the dial tone timeout has expired (and a fast-busy tone is played), the user can still make an outgoing call.
- To ensure that the OPTIONS Keep-Alive feature is fully functional, the remote side must send any message, including a SIP 501 “Not implemented” message.
- Enabling or disabling the Periodic Checking of Configuration File feature requires a device reboot.
- A SIP NOTIFY message with a “check-sync” event causes a device restart even if there are ongoing conversation calls.
- Google Chrome browser is not fully supported.

4.6 Version 3.2.0

4.6.1 What's New in Version 3.2.0

Version 3.2.0 offers the following new features:

- Ethernet WAN over VLAN can now be set to factory default.
- Additional information provided regarding the ADSL line (from CLI).
- Wi-Fi country region can now be selected, thereby allowing only permitted channels (frequencies) for the region.

4.6.2 Resolved Constraints in Version 3.2.0

The following constraints have been resolved in Version 3.2.0:

- ADSL annex B is now supported.
- Wi-Fi permission has been removed from the local user permissions list.
- Bug fix: When disconnecting the ADSL cable while there is WAN-LAN traffic, the system reboots. This might also occur in long runs if there is a PPPoE disconnection during traffic load.
- The wireless interface MAC address can now be modified.
- Bug fix: When terminating a **local** call by disconnecting both lines at the same time, a reorder tone is heard on Line 2 in the subsequent off-hook operation.
- If the MP-252 lines are not registered to a SIP proxy, during an upgrade, the **Phone** LED flashes green.
- MP-252 now supports DTMF relay via RFC 2833.
- The **ADSL** LED flashes when synchronizing.

4.6.3 Known Limitations in Version 3.2.0

Version 3.2.0 includes the following known limitations, which are planned to be fixed in future software versions.

4.6.3.1 MP-252 Specific Limitations

- Quality of Service (QoS) cannot be configured using the Web interface's QoS Wizard (**QoS** menu > **QoS Wizard** tab); it can only be configured using the Web Traffic Shaping screen (**QoS** menu > **Traffic Shaping** tab)
- When configuring quality of service DHCP, the shaping must be done on the VLAN interface.
- To change between "SIP Security" modes, the system needs to be restarted twice.
- Unable to connect through ADSL PPPoE in Automatic PVC Scan mode (manual mode works).
- Wi-Fi "Web Authentication" method is currently not supported.
- Wi-Fi WPS authentication is currently not supported.
- After performing call transfer, the transferring line is not disconnected. When picking up the receiver, the user hears a reorder tone and in case of an incoming call, MP-252 replies with a busy indication.
- It is not possible to set Wi-Fi authentication security through TR-069.
- When setting G.729 packetization time to 60 ms, the packetization time is actually set to 40 ms.
- In a scenario where one line is ringing and the other line is playing ringback tone, the ringback may be distorted.

- NTFS formatted USB storage devices that were not Safely Removed from their previous host (e.g. from a PC) are not detected properly by MP-252. The user must first “Safely Remove” such a device from the PC before attaching it to MP-252.
- USB file transfer rate is limited to 5 MB/s in read operation and 2.5 MB/s in write operation (depending on file-system type and file size).
- Some USB printers will not function properly with the Network Printer Server feature, depending on their compatibility with Linux systems and driver issues.
- During a voice call session, the user can send a fax to the remote party only once and thereafter, the user cannot switch back to the voice session.
- T.38 redundancy is currently not supported.
- Ethernet WAN is currently implemented using an internal VLAN. When using Ethernet WAN (and not ADSL WAN), the following limitations exist:
 - TR-069 management is not supported
 - Automatic dialer detection (PPPoE / L2TP / DHCP) is not supported
 - Configuration through the Web interface is complicated and involves several steps
 - VLANs are not supported
 - HTTP interception is not supported
 - MAC Cloning feature is not supported
 - Ethernet WAN cannot be configured using the Quick Setup screen

4.6.3.2 Additional Limitations

- Wi-Fi password fields in the Web are displayed in clear text.
- In a scenario in which an authentication is required for Call Hold, Music on Hold may not be sent from the media server to the remote machine.
- For DTMF's using RFC 2833 during G.711U call, payload 101 (default values) sound a little distorted.
- When there is a voice message, the MWI (“Envelope”) icon is not displayed; only stutter tone is heard.
- Occasionally, after software or hardware reboot, TCP registration may take a few minutes.
- After the dial tone timeout has expired (and a fast-busy tone is played), the user can still make an outgoing call.
- To ensure that the OPTIONS Keep-Alive feature is fully functional, the remote side must send any message, including the SIP 501 “Not implemented” message.
- Enabling or disabling the Periodic Checking of Configuration File feature requires a device reboot.
- A SIP NOTIFY message with a “check-sync” event causes a device restart even if there are ongoing conversation calls.
- Google Chrome browser is not fully supported.

4.7 Version 3.1.0

4.7.1 What's New in Version 3.1.0

The MP-252 features available in Version 3.1.0 are listed in the table below:

Table 4-1: MP-252 Specifications

Feature	Details
ADSL Interface	<ul style="list-style-type: none"> ▪ RJ-11 ADSL Jack ▪ ITU G.992.1 (G.dmt) – ADSL ▪ ITU G.992.3 (G.dmt.bis) – ADSL2 ▪ ITU G.992.5 – ADSL2+ ▪ Automatic PVC scanning ▪ Support for multiple PVCs ▪ Annex B (ADSL over ISDN) support available on a separate P/N ▪ Support for PPPoE-over-ETHoA or IP-over-ETHoA
Ethernet Interface	<ul style="list-style-type: none"> ▪ 4 ports RJ-45, 10/100Mbps, MDI/MDIX Auto-Sensing ▪ Port 4 can be configured as Ethernet WAN ▪ IEEE 802.3, IEEE 802.3u ▪ Wire-speed L2 switching between LAN ports
Wireless LAN	<ul style="list-style-type: none"> ▪ Wireless LAN - 802.11b/g/n Wireless Access Point, 2.4 GHz ▪ 2x2 MIMO internal antennas ▪ Wireless Security: <ul style="list-style-type: none"> ✓ WPA ✓ WPA2 ✓ WPA/WEP Mixed Mode ✓ TKIP Encryption ▪ MAC Filtering ▪ Virtual AP – Up to 4 SSIDs
USB Interface	<ul style="list-style-type: none"> ▪ USB 2.0 Host Interface ▪ Provides up to 1A current ▪ Network file server access to USB storage device: <ul style="list-style-type: none"> ✓ NTFS and FAT32 support ✓ Windows networking and file sharing ✓ WINS server ▪ Network printer access to USB printers: <ul style="list-style-type: none"> ✓ Support for most Linux-compatible printers ✓ LPD and Microsoft Shared Printers support
FXS (Phone) Interface	<ul style="list-style-type: none"> ▪ 2 RJ-11 Loop-start FXS Ports ▪ Configurable regional settings (impedance coefficients) ▪ Up to 5 REN / 0.5km load support (default set to 3 REN)
VoIP Signaling Protocols	<ul style="list-style-type: none"> ▪ SIP - RFC 3261, RFC 2327 (SDP)

Feature	Details
Data Protocols	<ul style="list-style-type: none"> ▪ IPv4, TCP, UDP, ICMP, ARP ▪ PPPoE (RFC 2516) ▪ L2TP (RFC 2661) ▪ PPTP (RFC 2637) ▪ DNS, Dynamic DNS ▪ WAN-to-LAN Layer-3 routing with: <ul style="list-style-type: none"> ✓ DHCP Client/Server (RFC 2132) ✓ NAT: RFC 3022, Application Layer Gateway (ALG) ✓ Stateful Packet Inspection Firewall
Media Processing	<ul style="list-style-type: none"> ▪ Voice Coders: G.711μ/a-law, G.729A/B, G.722 ▪ Echo Cancellation: G.168-2004 compliant, up to 64-msec tail length ▪ Silence Compression ▪ Adaptive Jitter Buffer 300 msec ▪ Fax bypass, Voice-Band Data and T.38 fax relay
Telephony Features	<ul style="list-style-type: none"> ▪ Call Hold and Transfer ▪ Two independent 3-Way Conferencing (one per line) ▪ Call Waiting ▪ Message Waiting Indication ▪ Call Forward ▪ Telephony Signaling: <ul style="list-style-type: none"> ✓ DTMF: Detection and Generation, TIA464B. In-band, RFC2833 or SIP-INFO relay ✓ Caller ID: Telcordia, ETSI, NTT - Type I, Telcordia Type II ✓ Configurable Call Progress Tones ✓ On/Off hook detection, Hook-flash detection
Configuration and Management	<ul style="list-style-type: none"> ▪ Embedded Web Server for configuration and management ▪ TR-069 and TR-104 for remote configuration and management ▪ Remote firmware upgrade and configuration by HTTP, TFTP, FTP, and HTTPS ▪ SIP-triggered remote firmware and configuration upgrade ▪ Command-Line Interface (CLI) over Telnet ▪ Dual image management ▪ SNMP
Packetization	<ul style="list-style-type: none"> ▪ RTP/RTCP Packetization (RFC 3550, RFC 3551) ▪ DTMF Relay (RFC 2833)
Security	<ul style="list-style-type: none"> ▪ HTTPS for Web-based configuration and for TR-069 ▪ Password-protected Web pages (MD5) ▪ Configuration file encryption (3DES) ▪ SIP over TLS ▪ State-full Packet Inspection firewall

4.7.2 Resolved Constraints in Version 3.1.0

The following constraints (from Version 0.1.0) have been resolved in Version 3.1.0:

- Fax relay T.38 is now supported.
- Firmware upgrade can now be performed in regular operation mode.
- Low-quality voice score under packet loss condition bug has now been fixed.
- Configuration file can now be downloaded from an HTTPS server.
- WiFi button is now functioning correctly.
- "Registration Error" indication in "System Monitoring" page bug has now been fixed.
- LAN PC obtaining WAN IP addresses during system reboot bug has now been fixed.
- One-way voice when configuring DTMF to "via sip" bug has now been fixed.
- WiFi performance (HW-related) has been improved.

4.7.3 Known Limitations in Version 3.1.0

Version 3.1.0 includes the following known limitations, which are planned to be fixed in future software versions.

4.7.3.1 MP-252 Specific Limitations

- During a voice call session, the user can send a fax to the remote party only once. If the user attempts to send another fax during this call session, fax transmission fails.
- ADSL annex B is currently not supported.
- WiFi "Web Authentication" method is currently not supported.
- WiFi WPS authentication is currently not supported.
- In some scenarios, when disconnecting the ADSL cable while there is WAN-LAN traffic, the system reboot. This might also occur in long runs if there is a PPPoE disconnection during traffic load.
- After performing call transfer, the transferring line is not disconnected. When picking up the receiver, the user hears a reorder tone and in case of an incoming call, MP-252 replies with a busy indication.
- In some scenarios, DTMF relay via RFC 2833 is not handled correctly.
- It is not possible to set WiFi authentication security via TR-069.
- It is not possible to set call forward key sequence via TR-069
- When setting G.729 packetization time to 60 ms, the packetization time is actually set to 40 ms.
- It is not possible to change the wireless interface MAC address, even though this feature is available on the Web interface.
- When terminating a **local** call by disconnecting both lines at the same time, a reorder tone is heard on Line 2 in the subsequent off-hook operation.
- NTFS formatted USB storage devices that were not Safely Removed from their previous host (e.g. from a PC), are not detected properly by MP-252. The user must first "Safely Remove" such a device from the PC before attaching it to MP-252.
- If the MP-252 lines are not registered to a SIP proxy, during an upgrade, the **Phone** LED lights in orange (red and green) color instead of blinking green.
- USB file transfer rate is limited to 5 MB/s in read operation and 2.5 MB/s in write operation (depending on file-system type and file size).

- Some USB printers will not function properly with the Network Printer Server feature, depending on their compatibility with Linux systems and on driver issues.
- Ethernet WAN is currently implemented using an internal VLAN. When using Ethernet WAN (and not ADSL WAN), the following limitations exist:
 - TR-069 management is not supported
 - Automatic dialer detection (PPPoE / L2TP / DHCP) is not supported
 - Configuration via Web is complicated and involves several steps
 - VLANs are not supported
 - HTTP interception is not supported

4.7.3.2 Additional Limitations

- Occasionally, after software or hardware reboot, TCP registration does not occur.
- After the dial tone timeout has expired (and a fast-busy tone is played), the user can still make an outgoing call.
- To ensure that the OPTIONS Keep-Alive feature is fully functional, the remote side must send any message, including the “501 Not implemented” SIP message.
- Enabling or disabling the Periodic Checking of Configuration File feature requires a device reboot.
- A SIP NOTIFY message with a “check-sync” event causes a device restart even if there are ongoing conversation calls.
- Google Chrome browser is not fully supported.

4.8 Version 1.0

4.8.1 Known Limitation in Version 1.0

- T38 is currently not supported. It will be added in the next release:
- Firmware upgrade fails if the VoIP task is enabled (always, in regular work). There is a temporary workaround to enable upgrades.
- Voice quality score under packet loss condition is currently low.
- It is not possible to download configuration file from an https server.
- USB: When connecting a high current device and trying to access files, system may be stuck.
- WiFi button doesn't function correctly.
- Access to storage devices with NTFS file system is read-only.
- Throughput is not stable (LAN-WAN) when making a call.
- Ethernet WAN is implemented using VLAN. HTTP interception does not work with it. Also, its configuration is not trivial - will be improved in next releases.
- When one line has registration error, both lines show "Registration Error" indication in "System Monitoring" page.
- When Ethernet WAN connection is set, during reboot LAN PC's gets WAN IP addresses.
- When L2TP dialer is set, there is dial tone only at one line at a time and there is no support for local call.
- One way voice when configuring DTMF to via sip.
- WiFi WPS is not supported.
- WiFi performance is not optimal.

Reader's Notes

MP-252 WDNB All-In-One Integrated Access Device

Release Notes

Version 3.4.0

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